

WHAT IS CLAIMED IS:

1 1. A tension mask frame assembly for a color cathode ray tube, comprising:
2 a tension mask formed on a plate, the tension mask including a plurality of strips and
3 including a plurality of slots to separate by a predetermined distance corresponding adjacent ones
4 of the plurality of strips;

5 a plurality of real bridges for respectively partitioning corresponding slots of the plurality
6 of slots at a predetermined pitch interval by connecting adjacent ones of the plurality of strips;
7 and

8 a frame for supporting the tension mask, whereby a vertical pitch of the plurality of real
9 bridges in a center portion of the tension mask is greater than a vertical pitch of the plurality of
10 real bridges in a peripheral portion of the tension mask.

11 2. The tension mask frame assembly for a color cathode ray tube according to claim 1,

12 further comprising:

13 a plurality of dummy bridges, each dummy bridge extending from a strip of the plurality
14 of strips on at least one side of a corresponding slot of the plurality of slots in a direction towards
15 a strip of the plurality of strips on an opposite side of the corresponding slot and being formed
16 adjacent to the corresponding slot that is partitioned by a corresponding one of the plurality of
17 real bridges.

1 3. The tension mask frame assembly for a color cathode ray tube according to claim 2,
2 further comprised of corresponding dummy bridges of the plurality of dummy bridges adjacent to
3 a corresponding slot of the plurality of slots being in a staggered relation with respect to
4 corresponding dummy bridges of the plurality of dummy bridges adjacent to an opposing slot of
5 the plurality of slots.

1 4. The tension mask frame assembly for a color cathode ray tube according to claim 2,
2 further comprised of a portion of the tension mask to one side of a center of the tension mask
being symmetrical to a corresponding portion of the tension mask located to an opposing side of
the center of the tension mask.

1 5. The tension mask frame assembly for a cathode ray tube according to claim 2, further
2 comprised of opposing side portions of the tension mask located with respect to a center of the
tension mask being symmetrical.

1 6. The tension mask frame assembly for a color cathode ray tube according to claim 2,
2 further comprised of each dummy bridge including a pair of protrusions, each pair of protrusions
3 respectively extending from adjacent strips of the plurality of strips, whereby a corresponding
4 pair of protrusions forming a dummy bridge are disposed in facing relation to each other.

1 7. A tension mask frame assembly for a color cathode ray tube, comprising:

2 a tension mask formed on a plate, the tension mask including a plurality of strips and
3 including a plurality of slots to separate by a predetermined distance corresponding adjacent ones
4 of the plurality of strips;

5 a plurality of real bridges for respectively partitioning corresponding slots of the plurality
6 of slots at a predetermined pitch interval by connecting adjacent ones of the plurality of strips;
7 and

8 a frame for supporting the tension mask, whereby a vertical pitch of the plurality of real
bridges decreases in a stepwise relation in a direction from a center portion of the tension mask to
a peripheral portion of the tension mask.

8. The tension mask frame assembly for a color cathode ray tube according to claim 7,
further comprising a plurality of dummy bridges on the plate, each dummy bridge extending from
a strip of the plurality of strips on at least one side of a corresponding slot of the plurality of slots
in a direction towards a strip of the plurality of strips on an opposite side of the corresponding
slot and being formed adjacent to the corresponding slot that is partitioned by a corresponding
one of the plurality of real bridges.

1 9. The tension mask frame assembly for a color cathode ray tube according to claim 8,
2 further comprised of corresponding dummy bridges of the plurality of dummy bridges adjacent to
3 a corresponding slot of the plurality of slots being in a staggered relation with respect to
4 corresponding dummy bridges of the plurality of dummy bridges adjacent to an opposing slot of

5 the plurality of slots.

1 10. The tension mask frame assembly for a color cathode ray tube according to claim 8,
2 further comprised of a portion of the tension mask located to one side with respect to a center of
3 the tension mask being symmetrical to a corresponding portion of the tension mask located to an
4 opposing side with respect to the center of the tension mask.

1 11. The tension mask frame assembly for a color cathode ray tube according to claim 8,
2 further comprised of opposing side portions of the tension mask located with respect to a center
3 of the tension mask being symmetrical.

1 12. The tension mask frame assembly for a color cathode ray tube according to claim 8,
2 further comprised of each dummy bridge including a pair of protrusions, each pair of protrusions
3 respectively extending from adjacent strips of the plurality of strips, whereby a corresponding
4 pair of protrusions forming a dummy bridge are disposed in facing relation to each other.

1 13. The tension mask frame assembly for a color cathode ray tube according to claim 8,
2 further comprised of a value M being obtained by dividing a vertical pitch of corresponding ones
3 of the plurality of real bridges of the tension mask by a vertical pitch of corresponding ones of
4 the plurality of dummy bridges of the tension mask, the value M decreasing in a stepwise relation
5 in a direction from the center portion of the tension mask to the peripheral portion of the tension

6 mask.

1 14. The tension mask frame assembly for a color cathode ray tube according to claim 13,
2 further comprised of the value M being in the range of from $3 \leq M \leq 29$.

1 15. The tension mask frame assembly for a color cathode ray tube according to claim 13,
2 further comprised of the value M being an integer.

1 16. The tension mask frame assembly for a color cathode ray tube according to claim 13,
2 further comprised of the tension mask including a plurality of regions, with a region of the
3 plurality of regions having a value M obtained by dividing a vertical pitch of corresponding ones
4 of real bridges in the region by a vertical pitch of corresponding ones of the dummy bridges in
5 the region and having an adjacent region to the region of the plurality of regions having a value
6 M-n obtained by dividing a vertical pitch of corresponding ones of real bridges in the adjacent
7 region by a vertical pitch of corresponding ones of dummy bridges in the adjacent region, with n
8 being a value greater than zero and less than M.

1 17. The tension mask frame assembly for a color cathode ray tube according to claim 16,
2 further comprised of the value M being in the range of from $3 \leq M \leq 29$.

1 18. The tension mask frame assembly for a color cathode ray tube according to claim 7,

2 further comprised of a portion of the tension mask located to one side with respect to a center of
3 the tension mask being symmetrical to a corresponding portion of the tension mask located to an
4 opposing side with respect to the center of the tension mask.

1 19. The tension mask frame assembly for a color cathode ray tube according to claim 7,
2 further comprised of the stepwise relation being symmetrical for corresponding portions of the
3 tension mask respectively located on opposing side portions with respect to a center of the
4 tension mask.

1 20. The tension mask frame assembly for a color cathode ray tube according to claim 7,
2 further comprised of corresponding opposing side portions of the tension mask located with
3 respect to a center of the tension mask being symmetrical.

1 21. A tension mask frame assembly for a color cathode ray tube, comprising:
2 a tension mask including a plurality of strips for forming a plurality of slots isolated from
3 each other on a plate at intervals of a predetermined distance;
4 a plurality of real bridges for respectively partitioning corresponding slots of the plurality
5 of slots at a predetermined pitch interval by connecting adjacent ones of the plurality of strips;
6 a plurality of dummy bridges, each dummy bridge extending from a strip of the plurality
7 of strips on at least one side of a corresponding slot of the plurality of slots in a direction towards
8 a strip of the plurality of strips on an opposite side of the corresponding slot and being formed

9 adjacent to the corresponding slot that is defined by a corresponding one of the plurality of real
10 bridges and corresponding adjacent ones of the plurality of strips; and

11 a frame for supporting the corresponding edges of the tension mask, the tension mask
12 being partitioned into a plurality of regions in a direction from a center portion of the tension
13 mask to a peripheral portion of the tension mask, whereby a vertical pitch of corresponding ones
14 of the plurality of real bridges of the tension mask decreases in a stepwise relation in a direction
15 from the center portion of the tension mask to the peripheral portion of the tension mask, with
each decrease in the stepwise relation corresponding to a corresponding region of the plurality of
regions.

16
22. The tension mask frame assembly for a color cathode ray tube according to claim 21,
further comprised of each of the plurality of dummy bridges including a pair of protrusions, each
pair of protrusions respectively extending from adjacent strips of the plurality of strips, whereby
a corresponding pair of protrusions forming a dummy bridge are disposed in facing relation to
5 each other.

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23. The tension mask frame assembly for a color cathode ray tube according to claim 21,
2 further comprised of a value M being obtained for a corresponding region of the plurality of
3 regions of the tension mask by dividing a vertical pitch of real bridges in the corresponding
4 region of the tension mask by a vertical pitch of dummy bridges in the corresponding region of
5 the tension mask, the value M decreasing in a stepwise relation in a direction from the center

6 portion of the tension mask to the peripheral portion of the tension mask, with each decrease in
7 the value of M in the stepwise relation corresponding to a corresponding region of the plurality of
regions.

1 24. The tension mask frame assembly for a color cathode ray tube of claim 23, further
2 comprised of the value M being in a range of $3 \leq M \leq 29$.

25. The tension mask frame assembly for a color cathode ray tube of claim 23, further
comprised of M being an integer.

26. The tension mask frame assembly for a color cathode ray tube of claim 23, further
comprised of a region of the plurality of regions of the tension mask having a value M obtained
by dividing a vertical pitch of corresponding ones of real bridges in the region by a vertical pitch
of corresponding ones of dummy bridges in the region and having an adjacent region to the
region of the plurality of regions having a value M-n obtained by dividing a vertical pitch of
corresponding ones of real bridges in the adjacent region by a vertical pitch of corresponding
ones of dummy bridges in the adjacent region, with n being a value greater than zero and less
than M.

1 27. The tension mask frame assembly for a color cathode ray tube of claim 26, further
2 comprised of the value M being in a range of $3 \leq M \leq 29$.

1 28. The tension mask frame assembly for a color cathode ray tube according to claim 21,
2 further comprised of a portion of the tension mask located to one side with respect to a center of
3 the tension mask being symmetrical to a corresponding portion of the tension mask located to an
4 opposing side with respect to the center of the tension mask.

1 29. The tension mask frame assembly for a color cathode ray tube according to claim 21,
2 further comprised of the stepwise relation being symmetrical for corresponding portions of the
3 tension mask respectively located on opposing side portions of the tension mask with respect to a
4 center of the tension mask.

1 30. The tension mask frame assembly for a color cathode ray tube according to claim 21,
2 further comprised of corresponding regions of the plurality of regions respectively located on
3 opposing side portions of the tension mask with respect to a center of the tension mask being
4 symmetrical.

1 31. The tension mask frame assembly for a color cathode ray tube according to claim 21,
2 further comprised of the stepwise relation being symmetrical for corresponding regions of the
3 plurality of regions respectively located on opposing side portions of the tension mask with
4 respect to a center of the tension mask.

1 32. A tension mask for a color cathode ray tube, comprising:

2 a tension mask formed on a plate, the tension mask including a plurality of strips and
3 including a plurality of slots to separate by a predetermined distance corresponding adjacent ones
4 of the plurality of strips; and

5 a plurality of real bridges for respectively partitioning corresponding slots of the plurality
6 of slots at a predetermined pitch interval by connecting adjacent ones of the plurality of strips,
7 whereby a vertical pitch of the plurality of real bridges in a center portion of the tension mask is
greater than a vertical pitch of the plurality of real bridges in a peripheral portion of the tension
mask.

33. The tension mask for a color cathode ray tube according to claim 32, further
comprising:

a plurality of dummy bridges, each dummy bridge extending from a strip of the plurality
of strips on at least one side of a corresponding slot of the plurality of slots in a direction towards
a strip of the plurality of strips on an opposite side of the corresponding slot and being formed
adjacent to the corresponding slot that is partitioned by a corresponding one of the plurality of
real bridges.

34. The tension mask for a color cathode ray tube according to claim 33, further
comprised of corresponding dummy bridges of the plurality of dummy bridges adjacent to a
corresponding slot of the plurality of slots being in a staggered relation with respect to

4 corresponding dummy bridges of the plurality of dummy bridges adjacent to an opposing slot of
5 the plurality of slots.

1 35. The tension mask for a color cathode ray tube according to claim 33, further
2 comprised of a portion of the tension mask to one side of a center of the tension mask being
3 symmetrical to a corresponding portion of the tension mask located to an opposing side of the
4 center of the tension mask.

36. The tension mask for a color cathode ray tube according to claim 33, further
comprised of each dummy bridge including a pair of protrusions, each pair of protrusions
respectively extending from adjacent strips of the plurality of strips, whereby a corresponding
pair of protrusions forming a dummy bridge are disposed in facing relation to each other.

37. A tension mask for a color cathode ray tube, comprising:

2 a tension mask formed on a plate, the tension mask including a plurality of strips and
3 including a plurality of slots to separate by a predetermined distance corresponding adjacent ones
4 of the plurality of strips; and

5 a plurality of real bridges for respectively partitioning corresponding slots of the plurality
6 of slots at a predetermined pitch interval by connecting adjacent ones of the plurality of strips,
7 whereby a vertical pitch of the plurality of real bridges decreases in a stepwise relation in a
8 direction from a center portion of the tension mask to a peripheral portion of the tension mask.

1 38. The tension mask for a color cathode ray tube according to claim 37, further
2 comprising a plurality of dummy bridges on the plate, each dummy bridge extending from a strip
3 of the plurality of strips on at least one side of a corresponding slot of the plurality of slots in a
4 direction towards a strip of the plurality of strips on an opposite side of the corresponding slot
5 and being formed adjacent to the corresponding slot that is partitioned by a corresponding one of
6 the plurality of real bridges.

39. The tension mask for a color cathode ray tube according to claim 38, further
comprised of a portion of the tension mask located to one side with respect to a center of the
tension mask being symmetrical to a corresponding portion of the tension mask located to an
opposing side with respect to the center of the tension mask.

40. The tension mask for a color cathode ray tube according to claim 38, further
comprised of each dummy bridge including a pair of protrusions, each pair of protrusions
respectively extending from adjacent strips of the plurality of strips, whereby a corresponding
pair of protrusions forming a dummy bridge are disposed in facing relation to each other.

41. The tension mask for a color cathode ray tube according to claim 38, further
comprised of a value M being obtained by dividing a vertical pitch of corresponding ones of the
plurality of real bridges of the tension mask by a vertical pitch of corresponding ones of the

4 plurality of dummy bridges of the tension mask, the value M decreasing in a stepwise relation in
5 a direction from the center portion of the tension mask to the peripheral portion of the tension
6 mask.

1 42. The tension mask for a color cathode ray tube according to claim 41, further
2 comprised of the value M being in the range of from $3 \leq M \leq 29$.

1 43. The tension mask for a color cathode ray tube according to claim 37, further
2 comprised of a portion of the tension mask located to one side with respect to a center of the
3 tension mask being symmetrical to a corresponding portion of the tension mask located to an
4 opposing side with respect to the center of the tension mask.

1 44. The tension mask for a color cathode ray tube according to claim 37, further
2 comprised of the stepwise relation being symmetrical for corresponding portions of the tension
3 mask respectively located on opposing side portions with respect to a center of the tension mask.

1 45. A tension mask for a color cathode ray tube, comprising:
2 a tension mask including a plurality of strips for forming a plurality of slots isolated from
3 each other on a plate at intervals of a predetermined distance;
4 a plurality of real bridges for respectively partitioning corresponding slots of the plurality
5 of slots at a predetermined pitch interval by connecting adjacent ones of the plurality of strips;

6 and

7 a plurality of dummy bridges, each dummy bridge extending from a strip of the plurality
8 of strips on at least one side of a corresponding slot of the plurality of slots in a direction towards
9 a strip of the plurality of strips on an opposite side of the corresponding slot and being formed
10 adjacent to the corresponding slot that is defined by a corresponding one of the plurality of real
11 bridges and corresponding adjacent ones of the plurality of strips, the tension mask being
12 partitioned into a plurality of regions in a direction from a center portion of the tension mask to a
13 peripheral portion of the tension mask, whereby a vertical pitch of corresponding ones of the
14 plurality of real bridges of the tension mask decreases in a stepwise relation in a direction from
15 the center portion of the tension mask to the peripheral portion of the tension mask, with each
16 decrease in the stepwise relation corresponding to a corresponding region of the plurality of
17 regions.

46. The tension mask for a color cathode ray tube according to claim 45, further
1 comprised of a value M being obtained for a corresponding region of the plurality of regions of
2 the tension mask by dividing a vertical pitch of real bridges in the corresponding region of the
3 tension mask by a vertical pitch of dummy bridges in the corresponding region of the tension
4 mask, the value M decreasing in a stepwise relation in a direction from the center portion of the
5 tension mask to the peripheral portion of the tension mask, with each decrease in the value of M
6 in the stepwise relation corresponding to a corresponding region of the plurality of regions.
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1 47. The tension mask for a color cathode ray tube of claim 46, further comprised of the
2 value M being in a range of $3 \leq M \leq 29$.

1 48. The tension mask for a color cathode ray tube of claim 46, further comprised of a
2 region of the plurality of regions of the tension mask having a value M obtained by dividing a
3 vertical pitch of corresponding ones of real bridges in the region by a vertical pitch of
4 corresponding ones of dummy bridges in the region and having an adjacent region to the region
of the plurality of regions having a value $M-n$ obtained by dividing a vertical pitch of
corresponding ones of real bridges in the adjacent region by a vertical pitch of corresponding
ones of dummy bridges in the adjacent region, with n being a value greater than zero and less
than M.

1 49. The tension mask for a color cathode ray tube of claim 48, further comprised of the
2 value M being in a range of $3 \leq M \leq 29$.

1 50. The tension mask for a color cathode ray tube according to claim 45, further
2 comprised of a portion of the tension mask located to one side with respect to a center of the
3 tension mask being symmetrical to a corresponding portion of the tension mask located to an
4 opposing side with respect to the center of the tension mask.

1 51. The tension mask for a color cathode ray tube according to claim 45, further

2 comprised of the stepwise relation being symmetrical for corresponding portions of the tension
3 mask respectively located on opposing side portions of the tension mask with respect to a center
4 of the tension mask.

1 52. The tension mask for a color cathode ray tube according to claim 45, further
2 comprised of corresponding regions of the plurality of regions respectively located on opposing
3 side portions of the tension mask with respect to a center of the tension mask being symmetrical.